

AN IMPLANTABLE ELECTRONIC MEDICAL DEVICE HAVING AN  
ENCAPSULATED OPTICAL TRANSDUCER

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ABSTRACT OF THE DISCLOSURE

An implantable electronic medical device has a housing defining a leak-proof-sealed chamber containing electronic cardiac rhythm-sensing circuitry. An optical emitter and an optical detector are connected to the circuitry and positioned outside of the housing. An optically-transmissive optical element encloses the emitter and  
10 detector with a leak-proof seal. The housing may define an aperture sealed by a closure element through which pass conductors connecting the emitter and detector to the circuitry. The optical element may connect to the closure element to define a chamber containing the emitter and detector. The optical element may be a transparent material, while the housing is an opaque metal chamber providing a shield against  
15 electronic interference.